



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/083,688

02/27/2002

Hiroshi Aoki

Q68731

1569

7590

02/20/2004

SUGHRUE MION, PLLC
2100 Pennsylvania Avenue, NW
Washington, DC 20037-3213

EXAMINER

LE, THANH TAM T

ART UNIT

PAPER NUMBER

2839

DATE MAILED: 02/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/083,688	Applicant(s) AOKI, HIROSHI	
	Examiner Thanh-Tam T. Le	Art Unit 2839	<i>AW</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 6-7, 11-12 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Urushibata et al. (4,963,699) in view of Daum et al. (4,669,798).

Urushibata et al., figures 1 and 5, disclose a relay connector for connecting wires (6) to a flat circuit member (5) having a plurality of conductors (7), the relay connector comprising:

- a plurality of electrical connection terminals (10), each including at its rear end portion a wire connection portion (1) to which the wire is connectable, and at its front end portion a pair of piercing portions (3) to pierce the conductor of the flat circuit member; and
- an insulating housing (12) for receiving and holding the plurality of electrical connection terminals at an interval corresponding to an arrangement pitch of the plurality of conductors of the flat circuit member.

Urushibata et al. disclose the instant claimed invention as described above except for each pair of piecing portions pierces the plurality of conductors at one time and is bent back.

Daum et al., figures 6 and 7, disclose an electrical terminal for flexible printed circuits having crimp tabs 34 and 37 penetrate through the conductive copper strip (27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Urushibata et al.'s connector with the crimp tabs as taught by Daum et al., in order to provide the electrical connection between the terminal and the flexible printed circuit.

Regarding claims 2, 6-7, 12 and 16, Urushibata et al., disclose each pair of piercing portions is formed at a flat surface portion and forwardly from the insulating housing when the plurality of electrical terminals are received in the insulating housing and projects substantially upright (since the Applicant does not disclose each pair of piercing portions projects upright respect to what direction).

3. Claims 3-5, 8-10 and 13-15 rejected under 35 U.S.C. 103(a) as being unpatentable over Urushibata et al. (4,963,699) and Daum et al. as applied to claims 1 and 11 above, and further in view of Rahrig et al. (4,690,478).

Regarding claims 3, 8 and 11, Urushibata et al. ('699), figure 1, disclose the instant claimed invention as described above except for the insulating housing includes a housing body with a plurality of terminal receiving grooves and a housing cover.

Rahrig et al., figure 2 disclose a sealed electrical connector assembly having a terminal holder (16) with housing grooves and a housing (14) which read on the insulating housing includes a housing body with a plurality of terminal receiving grooves and a housing cover. It would have been obvious to one of ordinary skill in the art at the

time the invention was made to modify Urushibata et al. to have the terminal holder and housing as taught by Rahrig et al., in order to protect the terminals.

Regarding claims 4, 9 and 14, it is noted that Rahrig et al. disclose each of the plurality of terminal receiving grooves includes a retaining projection (70a) engaged with the electrical connection terminal to position the electrical connection terminal in an axial direction of the electrical connection terminal.

Regarding claims 5, 10 and 15, it is noted that Rahrig et al., figures 4 and 15, disclose each of the plurality of the electrical connection terminals includes an engagement portion (42) engaged with the corresponding retaining projection.

Response to Arguments

4. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

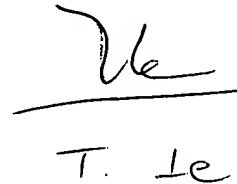
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh-Tam T. Le whose telephone number is (571) 272-2094. The examiner can normally be reached on 8:30-5:00.

6. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571) 272-2092. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2839

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TL
02/17/04.



T. Le